

CLAIMS

What is claimed is:

1. A self calibrating imaging display system comprising:
a display having a screen;
at least one photosensor integrated with said screen, said photosensor detecting luminance value correlating to a luminance level of said screen.
2. The self calibrating imaging display system of claim 1, wherein said at least one photo sensor comprises an array of photosensors.
3. The self calibrating imaging display system of claim 2, wherein said array of photosensors comprises photosensors horizontally and vertically dispersed over a portion of said screen.
4. The self calibrating imaging display system of claim 3, wherein said portion is a region of said screen comprising at least 90% of a surface area of said screen.
5. The self calibrating imaging display system of claim 1, wherein said at least one photosensor is formed into said screen.
6. The self calibrating imaging display system of claim 1, wherein said at least one photosensor is formed on a transparent sheet, said transparent sheet being disposed on said screen.
7. The self calibrating imaging display system of claim 1, further comprising a calibration module, said calibration module receiving an input from said photosensors correlating to said luminance value and determining at least one luminance correction factor which is applied to adjust luminance of said screen.

8. The self calibrating imaging display system of claim 7, wherein a plurality of luminance correction factors are determined, different ones of said luminance correction factors being applied to different regions of said screen.
9. The self calibrating imaging display system of claim 7, wherein said calibration module automatically updates said luminance correction factor at predetermined intervals.
10. The self calibrating imaging display system of claim 7, wherein said calibration module updates said luminance correction factor responsive to a user input.
11. The self calibrating imaging display system of claim 7, said calibration module generating a calibration record upon an update of said luminance correction factor.
12. The self calibrating imaging display system of claim 1, wherein said imaging display is a medical imaging display.
13. A self calibrating imaging display system comprising:
 - a display having a screen;
 - at least one photosensor integrated with said screen, said photosensor detecting color values correlating to a color level of said screen.
14. The self calibrating imaging display system of claim 13, wherein said at least one photo sensor comprises an array of photosensors.
15. A method of calibrating an imaging display system comprising the steps of:
 - receiving at least one luminance value from at least one photosensor integrated with a screen of a display, said photosensor detecting luminance levels of said screen;
 - and

from said detected luminance levels, determining at least one luminance correction factor which is applied to adjust luminance of said screen.

16. The method of calibrating an imaging display system according to claim 15, wherein said at least one photo sensor comprises an array of photosensors.

17. The method of calibrating an imaging display system according to claim 16, wherein said array of photosensors comprises photosensors horizontally and vertically dispersed over a portion of said screen.

18. The method of calibrating an imaging display system according to claim 17, wherein said portion is a region of said screen comprising at least 90% of a surface area of said screen.

19. The method of calibrating an imaging display system according to claim 17, wherein a plurality of luminance correction factors are determined, different ones of said luminance correction factors being applied to different regions of said screen.

20. The method of calibrating an imaging display system according to claim 15, further comprising the step of automatically updating said luminance correction factor at predetermined intervals.

21. The method of calibrating an imaging display system according to claim 15, further comprising the step of updating said luminance correction factor responsive to a user input.

22. The method of calibrating an imaging display system according to claim 15, further comprising the step of generating a calibration record upon an update of said luminance correction factor.

23. A method of calibrating an imaging display system comprising the steps of:
receiving at least one color value from at least one photosensor integrated with a screen of a display, said photosensor detecting color levels of said screen; and
from said detected color levels, determining at least one color correction factor which is applied to adjust color levels of said screen.

24. The method of calibrating an imaging display system according to claim 23, wherein said at least one photo sensor comprises an array of photosensors.

25. A machine-readable storage having stored thereon a computer program having a plurality of code sections, the code sections executable by a machine for causing the machine to perform the steps of:

receiving at least one luminance value from at least one photosensor integrated with a screen of a display, said photosensor detecting luminance levels of said screen; and

from said detected luminance levels, determining at least one luminance correction factor which is applied to adjust luminance of said screen.

26. The machine-readable storage of claim 25, wherein said at least one photo sensor comprises an array of photosensors.

27. The machine-readable storage of claim 26, wherein said array of photosensors comprises photosensors horizontally and vertically dispersed over a portion of said screen.

28. The machine-readable storage of claim 27, wherein said portion is a region of said screen comprising at least 90% of a surface area of said screen.

29. The machine-readable storage of claim 27, wherein a plurality of luminance correction factors are determined, different ones of said luminance correction factors being applied to different regions of said screen.

30. The machine-readable storage of claim 25, further comprising the step of automatically updating said luminance correction factor at predetermined intervals.

31. The machine-readable storage of claim 25, further comprising the step of updating said luminance correction factor responsive to a user input.

32. The machine-readable storage of claim 23, further comprising the step of generating a calibration record upon an update of said luminance correction factor.